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PATENT APPLICATION
09/199,723

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Graham W. Glass
Serial No.: 09/199,723
Filing Date: November 25, 1998
Group Art Unit: 2126
Examiner: Sue X. Lao
Title: METHOD OF FORWARDING MESSAGES TO
 MOBILE OBJECTS IN A COMPUTER NETWORK

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

APPEAL BRIEF

Applicant has appealed to the Board of Patent Appeals and Interferences from the decision of the Examiner mailed January 16, 2004, finally rejecting Claims 1-7. Applicant filed a Notice of Appeal on April 15, 2004. Applicant respectfully submits herewith their brief on appeal, in triplicate, with a statutory fee of \$165.00.

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REAL PARTY IN INTEREST

The present application was assigned to Objectspace, Inc., a Delaware corporation, as indicated by an assignment from the inventor recorded on November 25, 1998 in the Assignment Records of the United States Patent and Trademark Office at Reel 09615, Frames 00983-0985. The present application was subsequently assigned by Objectspace, Inc. to Recursion Software, Inc., a Texas corporation, as indicated by an assignment recorded on February 22, 2002 in the Assignment Records of the United States Patent and Trademark Office at Reel 012587, Frames 0702-0705.

RELATED APPEALS AND INTERFERENCES

There are no known appeals or interferences that will directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

STATUS OF CLAIMS

Claims 1-7 stand rejected pursuant to a Final Action mailed January 16, 2004. Claims 1-7 are all presented for appeal.

STATUS OF AMENDMENTS

A Response to Examiner's Final Action was filed on March 16, 2004 in response to the Final Action mailed January 16, 2004. No amendments were made to the claims. The Examiner issued an Advisory Action dated April 5, 2004 which stated that the Response to Examiner's Final Action was considered but that it did not place the application in condition for allowance. A Notice of Appeal was filed on April 15, 2004.

SUMMARY OF INVENTION

The present invention involves forwarding messages to a first object (902) that has moved from a current position (910) of a computer network (100) to a new position (914) of the computer network (100). An old version (816) of the first object (902) is retained at the current position (910). A forwarder object (922) associated with the first object (902) is created at the current position (910) from the old version (816). The forwarder object (922) includes the new position (914) for the first object (902). A second object (926) at a different position (928) creates a message (MSG2) destined for the first object (902). Not knowing that the first object (902) has moved, the second object (926) sends the message (MSG2) to the current position (910). The forwarder object (922) intercepts and forwards the message (MSG2) to the first object (902) at the new position (914). The first object (902) returns a reply message (REPLY2) directly to the second object (926). The reply message (REPLY2) includes the new position (914) for the first object (902). The second object (926) updates its reference to the first object (902) in response to the reply message (REPLY2). Subsequent messages from the second object (926) to the first object (902) can now be delivered directly without going through the forwarder object (922).

STATEMENT OF ISSUES

1. Did the Examiner err in concluding that Claim 1 was obvious under 35 U.S.C. §103(a) over the Moons, et al. article in view of the La Porta, et al. patent?

2. Did the Examiner err in concluding that Claims 5 and 6 were obvious under 35 U.S.C. §103(a) over the Moons, et al. article in view of the La Porta, et al. patent and further in view of the Black, et al. patent?

3. Did the Examiner err in concluding that Claim 7 was obvious under 35 U.S.C. §103(a) over the Moons, et al. article in view of the La Porta, et al. patent and further in view of the SOM guide?

4. Did the Examiner err in concluding that Claims 2-4 were obvious under 35 U.S.C. §103(a) over the Moons, et al. article in view of the La Porta, et al. patent and further in view of the Black, et al. patent and the Banda, et al. patent?

GROUPING OF CLAIMS

Applicant respectfully requests that Claims 1-7 be grouped to stand or fall together according to 37 C.F.R. §1.192(c)(7).

ARGUMENT

1. Claim 1 stands rejected under 35 U.S.C. §103(a) as being obvious over Moons, et al. in view of La Porta, et al. According to M.P.E.P. §2143, to establish a prima facie case of obviousness, three criteria must be met. First, there must be some suggestion or motivation to combine the references. Second, there must be a reasonable expectation of success. Third, the prior art combination of references must teach or suggest all the claim limitations. The Examiner has not established that any criteria for a prima facie case of obviousness has been met in this instance.

First, there is no suggestion or motivation in the Moons, et al. article or the La Porta, et al. patent to combine them as proposed by the Examiner. The Moons, et al. article is directed to object migration in a distributed computing environment. The La Porta, et al. patent is directed to a technique for providing personal communications services for mobile users. Thus, the Moons, et al. article is concerned with software migration while the La Porta, et al. patent is concerned with physical user movement. The Examiner has not cited any language within the Moons, et al. article or the La Porta, et al. patent that would suggest any capability for them to be combined. In fact, no objective reason was provided by the Examiner for combining the references as has been proposed other than through an improper hindsight reconstruction of the claimed invention. The Examiner has merely provided conclusory "it would have been obvious to combine" statements using improper hindsight reconstruction without any support for such conclusory statements from any of the cited references. The Examiner attempts to use the physical movement of mobile users in the La Porta, et al. patent to support a combination with the software object

migration of the Moons, et al. article. However, mobile user movement and software object migration are totally incompatible subject matters. A statement that modifications of the prior art to meet the claimed invention would have been well within the ordinary skill of the art at the time the claimed invention was made because the references relied upon teach that all aspects of the claimed invention were individually known in the art is not sufficient to establish a prima facie case of obviousness without some objective reason to combine the teachings of the references. See M.P.E.P. 2143.01. Since the Examiner has not provided any proper reasoning, let alone objective reasoning, the burden to establish the first criteria of a prima facie case of obviousness has not been met.

Moreover, the proposed modification changes the principle of operation of the prior art being modified. The Moons, et al. article provides a technique for a software object to move within a distributed computing environment. The La Porta, et al. patent provides a technique for a mobile user to maintain communications while moving across communication boundaries. Thus, the principle of operation of the Moons, et al. article and the La Porta, et al. patent would be improperly changed by incorporating their respective teachings. The Examiner has yet to explain how the Moons, et al. article and the La Porta, et al. patent can be combined in view of such different functionalities. Therefore, Applicant respectfully submits that the Examiner has failed to establish the first criteria for a prima facie case of obviousness.

Second, a reasonable expectation of success has not been shown by the Examiner. The combination of the Moons, et al. article and the La Porta, et al. patent would not be capable of performing the operation required by the claimed invention.

There is no showing by the Examiner that the functions of any of the Moons, et al. article and the La Porta, et al. patent would be able to operate in a single system. There has also been no showing that the combined references would even be able to perform the functionality of the claimed invention. The proposed combination attempts to combine incompatible processing techniques that have not been shown to be capable of operating according to any degree of predictability. The Examiner, without the improper hindsight look through the claimed invention, has not addressed how the proposed combination of the Moons, et al. article and the La Porta, et al. patent would have any success whatsoever let alone a reasonable expectation of success. Therefore, Applicant respectfully submits that the Examiner has failed to establish the second criteria for a prima facie case of obviousness.

Third, the Examiner has not shown that the proposed Moons, et al. - La Porta, et al. combination teaches or suggests all of the claim limitations. For example, Independent Claim 1 recites ". . . retaining an old version of the first object at the current position; creating a forwarder object from the old version of the first object at the current position in response to establishing the first object at the new position . . . re-routing the message from the forwarder object to the first object at the new position." The Moons, et al. article discloses the installation of a signpost used to forward requests to the new location. However, the signpost of the Moons, et al. article is not created from an old version of the object retained at the old position as required in the claimed invention. Moreover, the signpost of the Moons, et al. article is not created from the old version in response to establishment of the object at the new position as required in the claimed invention. The Examiner readily

admits that the Moons, et al. article lacks disclosure of these features and uses the La Porta, et al. patent for support of these missing features. However, the La Porta, et al. patent merely discloses the use of a stub process, created prior to any movement, that buffers messages arriving while its user process is migrating to a new location. See col. 8, lines 44-46, of the La Porta, et al. patent. Once the user process has reached the new location, it requests any and all messages buffered by the stub process. See col. 8, lines 59-61, of the La Porta, et al. patent. At this point, the stub process exits. Thus, the stub process is not akin to the claimed forwarder object as it does not re-route messages nor is it created after there has been establishment of the user process at the new location as required by the claimed invention. Moreover, an old version of the user process is not retained at the current location as the Condor mechanism of the La Porta, et al. patent performs a core memory dump to re-create the user process at the new location and exits from the current location. See col. 8, lines 47-49, of the La Porta, et al. patent. Thus, the structure that would result from placing the stub process of the La Porta, et al. patent into the signpost operation of the Moons, et al. article still lacks the capability of retaining an old version of the object at the current location, creating a forwarder object at the current location from the old version in response to establishment of the object at the new location, and re-routing messages from the forwarder object at the current location to the new version of the object at the new location. Thus, the Examiner has failed to show how the proposed combination of the Moons, et al. patent and the La Porta, et al. patent teaches each and every limitation of the claims. Without showing how each limitation of each claim is shown in

the prior art, there is no possibility to meet the third criteria of a prima facie case of obviousness. Therefore, Applicant respectfully submits that the Examiner has failed to establish the third criteria for a prima facie case of obviousness.

Applicant respectfully requests the Examiner to provide one or more combinable references that support the rejections of the claims. Applicant also respectfully requests the Examiner to show where each and every limitation of each and every claim is taught or suggested by the prior art. With no other supporting reference that is combinable with the Moons, et al. article and the La Porta, et al. patent, all claim limitations have not been taught or suggested by the Examiner's currently proposed combination. The Examiner has not cited any language within the Moons, et al. article or the La Porta, et al. patent, either alone or in combination, that would suggest the desirability of making the claimed invention or providing any motivation to do so. Subjective conclusions of obviousness are not sufficient to establish a prima facie case of obviousness without some objective reason to modify and combine the prior art references. Therefore, Applicant respectfully submits that Claim 1 are patentably distinct from the proposed Moons, et al. - La Porta, et al. combination.

2. Claims 5 and 6 stand rejected under 35 U.S.C. §103(a) as being obvious over Moons, et al. in view of La Porta, et al. and further in view of Black, et al. Independent Claim 1, from which Claims 5 and 6 depend, has been shown above to be patentably distinct from the proposed Moons, et al. - La Porta, et al. combination. Moreover, the Black, et al. patent does not disclose any additional information combinable with either of the Moons, et al. article or the La Porta, et al. patent that would be material to patentability of these claims. Further, the Examiner has not presented any discussion with respect to the Black, et al. patent as to the three criteria necessary to establish a prima facie case of obviousness. Therefore, Applicant respectfully submits that Claims 5 and 6 are patentably distinct from the proposed Moons, et al. - La Porta, et al. - Black, et al. combination.

3. Claim 7 stands rejected under 35 U.S.C. §103(a) as being obvious over Moons, et al. in view of La Porta, et al. and further in view of SOM Programmer's Guide. Independent Claim 1, from which Claim 7 depends, has been shown above to be patentably distinct from the proposed Moons, et al. - La Porta, et al. combination. Moreover, the SOM Programmer's Guide does not disclose any additional information combinable with either of the Moons, et al. article or the La Porta, et al. patent that would be material to patentability of these claims. Further, the Examiner has not presented any discussion with respect to the SOM Programmer's Guide as to the three criteria necessary to establish a prima facie case of obviousness. Therefore, Applicant respectfully submits that Claim 7 is patentably distinct from the proposed Moons, et al. - La Porta, et al. - SOM Programmer's Guide combination.

4. Claims 2-4 stand rejected under 35 U.S.C. §103(a) as being obvious over Moons, et al. in view of La Porta, et al. and further in view of Black, et al. and Banda, et al. Independent Claim 1, from which Claims 2-4 depend, has been shown above to be patentably distinct from the proposed Moons, et al. - La Porta, et al. combination. Moreover, the Black, et al. and Banda, et al. patents do not disclose any additional information combinable with either of the Moons, et al. article or the La Porta, et al. patent that would be material to patentability of these claims. Further, the Examiner has not presented any discussion with respect to the Black, et al. and Banda, et al. patents as to the three criteria necessary to establish a prima facie case of obviousness. Therefore, Applicant respectfully submits that Claims 5 and 6 are patentably distinct from the proposed Moons, et al. - La Porta, et al. - Black, et al. - Banda, et al. combination.

CONCLUSION

Applicant has clearly demonstrated that the present invention as claimed is clearly distinguishable over all the art cited of record, either alone or in combination, and satisfies all requirements under 35 U.S.C. §§101, 102, and 103, and 112. Therefore, Applicant respectfully requests the Board of Patent Appeals and Interferences to reverse the final rejection of the Examiner and instruct the Examiner to issue a notice of allowance of all claims.

Applicant respectfully requests a one month extension of time for submitting this Appeal Brief. Attached herewith is a Notification of Extension of Time in support thereof and a check made payable to the "Commissioner of Patents and Trademarks" in an amount of \$110.00 to satisfy the extension of time fee of 37 C.F.R. §1.17(a)(1).

Attached herewith is a check made payable to the "Commissioner of Patents and Trademarks" in an amount of \$165.00 to satisfy the appeal brief filing fee of 37 C.F.R. §1.17(c).

The Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of BAKER BOTTS L.L.P.

Respectfully submitted,
BAKER BOTTS L.L.P.
Attorneys for Applicant

A handwritten signature in black ink, appearing to read "Charles S. Fish", is written over the typed name.

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July 15, 2004

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APPENDIX A

1. (Previously Presented) A method of forwarding messages to mobile objects in a computer network, comprising steps of:

moving a first object from a current position to a new position in the computer network;

retaining an old version of the first object at the current position;

creating a forwarder object from the old version of the first object at the current position in response to establishing the first object at the new position;

placing information with respect to the new position at the forwarder object;

receiving a message at the current position destined for the first object from a second object;

re-routing the message from the forwarder object to the first object at the new position.

2. (Original) The method of Claim 1, further comprising steps of:

creating a reply message at the first object, the reply message including information with respect to the new position;

sending the reply message directly to the second object.

3. (Original) The method of Claim 2, further comprising steps of:

creating a subsequent message at the second object, the subsequent message being destined for the first object;

sending the subsequent message to the first object at the new position received in the reply message.

4. (Original) The method of Claim 3, wherein the subsequent message is sent directly to the first object without routing through the current position or the forwarder object.

5. (Original) The method of Claim 1, wherein the forwarder is destroyed after routing the message to the first object.

6. (Original) The method of Claim 1, wherein the current position and the new position are host address and port numbers corresponding to one or more computing devices within the computer network.

7. (Original) The method of Claim 1, wherein the forwarder object is given a same lifespan as the first object.